

Table S3. Taxa associated with human *APOE* genotype detected by Kruskal-Wallis test with Dunn's multiple comparision correction

Taxa		Kruskal-Wallis test	Dunn's multiple comparison with BH adjustment						Means			
			E2/E3 - E3/E3	E2/E3 - E3/E4	E3/E3 - E3/E4	E2/E3 - E4/E4	E3/E3 - E4/E4	E3/E4 - E4/E4	E2/E3	E3/E3	E3/E4	E4/E4
Phylum	Firmicutes	0.041	0.115	0.029	0.248	0.039	0.126	0.211	87.90	83.42	78.59	76.20
Class	Firmicutes.Clostridia	0.035	0.091	0.051	0.323	0.020	0.094	0.137	81.05	75.21	71.05	67.92
Order	Firmicutes.Clostridia.Clostridiales	0.036	0.091	0.050	0.319	0.021	0.098	0.143	80.90	75.08	70.91	67.74
Family	Bacteroidetes.Bacteroidia.Bacteroidales.Prevotellaceae	0.009	0.008	0.085	0.103	0.015	0.340	0.088	0.14	2.93	1.79	1.40
	Firmicutes.Clostridia.Clostridiales.Ruminococcaceae	0.004	0.004	0.002	0.383	0.072	0.348	0.352	34.36	24.39	22.71	27.45
Genus	Firmicutes.Clostridia.Clostridiales.Lachnospiraceae.Clostridium XIVa	0.094	0.140	0.486	0.162	0.044	0.177	0.078	1.56	1.70	1.20	3.69
	Firmicutes.Clostridia.Clostridiales.Lachnospiraceae.Roseburia	0.057	0.080	0.099	0.328	0.365	0.063	0.082	2.77	9.93	6.86	2.37
	Firmicutes.Clostridia.Clostridiales.Ruminococcaceae.Clostridium IV	0.043	0.027	0.480	0.039	0.371	0.232	0.281	1.10	0.59	1.13	0.73
	Firmicutes.Clostridia.Clostridiales.Ruminococcaceae.Gemmiger	0.086	0.050	0.086	0.476	0.400	0.184	0.228	10.14	3.71	4.64	4.96